

### S U M M A R Y

Measles is one of the most infectious agent caused by measles virus which belong morphologically to paramyxo-virus group, genus morbilli-virus.

Measles is wide world distribution and is endemic in most places. It is contracted via nasopharyngeal , route and all susceptible children develop the disease upon their first contact with the virus. The highest incidence is seen in children of 5 - 7 years old with epidemic every 2 - 3 years. The epidemic occur in developing countries every year and 90% of population become immune by the age of 5 years. The disease is much more sporadic since human is the only natural reservoir of infection.

The clinical disease results in solid, immunity. Passively transferred maternal antibody protects the young infants for the first 4 - 8 months of life. Specific cell mediated immunity develop early in the course of infection helping to control the disease.

The incubation period is about 10 - 14 days, prodromal stage with its clinical manifestation, (fever, coryza, cough, running nose, redness and watering eyes,

conjunctivitis, photophobia and Koplik's spots) lasts for 3 - 4 days then rash appears. After 3 days the rash fades and disappears in order which it appeared.

Persistence of fever beyond the disappearance of rash usually signals the presence of complications e.g. otitis media, pneumonia, encephalitis and other less common complications.

Measles diagnosed clinically through the characteristic feature of measles without a prior history of measles or vaccination. The laboratory diagnosis include isolation of virus and demonstration of antibodies against measles serologically.

Measles must be differentiated from other causes of maculopapular rash e.g. rubella, roseola, enteroviral infection, adeno-viral infection, infectious mononucleosis, ... etc.

The treatment of measles is mainly symptomatic and supportive and meticulous attention to prevention of secondary bacterial infection. Antibiotic must be

given once complication occur. Antiviral drugs have been empirically given to patient with subacute sclerosing pan-encephalitis (e.g. isoprinosine).

Measles is usually self limited disease lasting often without permanent sequelae although it is a severe infection.

Prevention and control of measles by passive immunization can modify or prevent the disease if given within 6 days of exposure but protection is transient. That is to protect immunosuppressive patient and other at high risks. Live attenuated measles vaccine is available and highly immunogenic. Two types, Ender's vaccine and further attenuated measles virus (Schwarz and Moraten strain) are derived from the Edmonston strain of virus given to children over 15 months. Killed or inactivated vaccine isn't only poor immunogenic but may also cause sensitization of some individuals and may result in severe atypical measles syndrome.

In 1966, American and Japanese investigators report a new vaccine (Aerosolized Measles vaccine which a

nasal instillation of partly attenuated measles vaccine.  
In 1971 Soviet investigator reported affected immunity  
in older children whose exposed in large tent or chamber  
containing aerosol of further attenuated measles vaccine.